Module 13

Acquiring Audio

Audio is crucial. The best images will lose their impact if their audio is mediocre. Adobe® Premiere® Pro offers plenty of ways to give your project a sonic boost.

Your students will need to acquire some of that audio during on-location taping. Relying solely on their onboard camcorder microphone (or *mic*, for short) might lead to disappointing results. Choosing and using additional mics will sweeten their sound.

After they're back in their studio—be it at school, home, or work—they'll likely add narration. There's no need to rent an expensive audio studio—your camcorder or soundcard and a simple makeshift audio recording area will do the trick. Some professional narration techniques will help as well. Finally, there's no need to hire a composer and musicians for noncommercial-use music: use Adobe Audition™ or Microsoft Media Player to rip CDs.

At the end of this lesson, students will have learned about:

- Selecting the right microphones for the job
- Connecting microphones to your camcorder or PC
- Expert audio tips from a Shure, Inc. engineer
- Building a voice recording area
- Voicing professional narrations
- Ripping Music CDs

Selecting the Right Mic for the Job

The topic is microphones, but the first order of business is to get a good headset—one that covers the ears to block out extraneous sound. Plug it into your camcorder. As you record, listen. Is that how you want your video production to sound?

Onboard microphones take the middle ground. They pick up sound from everywhere, including camera noise and wind. If you zoom in on a subject, onboard mics don't zoom with you. They still pick up noise from all around you. Crowd noise, sound reflecting off walls, the hum from the air conditioner, the zoom lens itself—as well as noise you create while handling the camcorder.

What you need are some external mics. Specialized mics that serve narrow but useful functions. I've illustrated them in Figure 13.1. Here are the five basic types:

- Handheld
- Shotgun
- Wireless
- Surface mount
- Lavaliere

FIGURE 13.1: *Five standard-issue mics: handheld, shotgun, wireless handheld, boundary, and lavaliere. (Products provided by Shure, Inc.)*

Handheld Mic

If you own only one external mic, make it a handheld. They're the rugged workhorses of the audio industry. Built with internal shock mounts to reduce handling noise, you'll use these mics for interviews, place them on podiums to record speeches, and use them to create narrations.

Many handheld mics are omnidirectional, meaning that they pick up sound from all directions. So, they'll pick up ambient room noise as well as close-up audio. To minimize that unwanted noise, keep the mic as close to your subject as practical—about a foot from the speaker's mouth works well.

A top-of-the-line, rugged, durable handheld costs from $150 to $250. Shure, Inc. (http://www.shure.com), the world's leading mic manufacturer, loaned me a handheld—as well as a lavaliere and a shotgun mic—to test while writing this book. (A senior engineer with Shure provided the expert sidebar later in this module.) The Shure handheld SM63LB performed flawlessly within a wide frequency range, accurately capturing low and high voices. It retails for $225.

Most handheld mics use what's called a *dynamic transducer*. As Figure 13.2 illustrates, the transducer is a thin diaphragm attached to a tiny coil. As sound waves vibrate the diaphragm, the wire moves over a magnet, which converts that physical energy into an electrical signal. Dynamic transducer mics do not require any electrical power to operate.

Shure, Inc. notes that "Dynamic mics are rugged and can handle high sound pressure levels, like those delivered by kick drums, snare drums, and high volume guitar amps. They're also good for loud, aggressive vocals. Most people start out recording with dynamic mics because of their lower cost and high durability."

The other type of mic—the *condenser transducer*, also shown in Figure 13.2—needs "phantom" power to be provided by a mixer or batteries. It uses a thin, flat plastic or metal diaphragm layered over another piece of metal or metal-coated ceramic. This type of mic is typically very small and has an extremely weak signal that requires preamplification before sending it to your camcorder or a mixer.

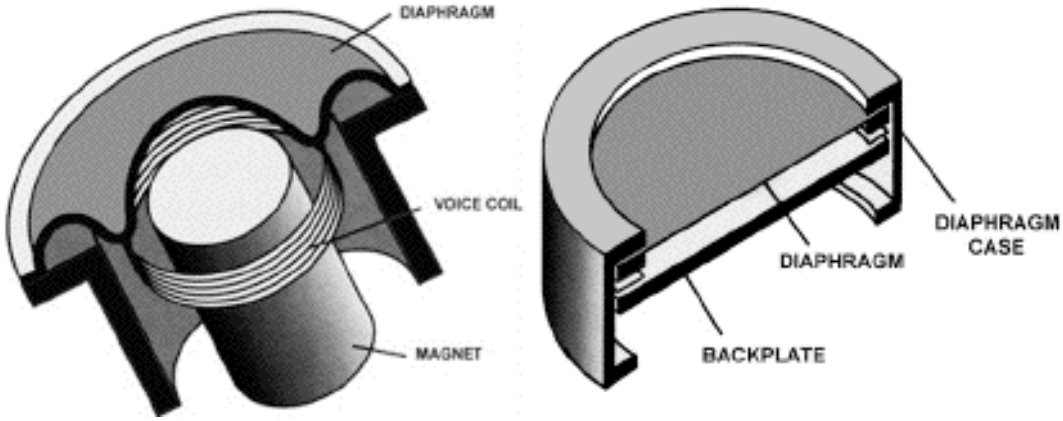

FIGURE 13.2: *Cutaway views of a dynamic transducer mic (left) and a condenser transducer mic. (Illustration courtesy of Shure Inc., 2003.)*

Shure adds that "condenser mics are more sensitive than dynamic mics and are very responsive to high frequencies produced by an acoustic guitar or cymbals on a drum-kit." Condenser mics are excellent for interviews, narrations, and performance or studio music vocal recordings.

Lavaliere Mic

Most lavalieres use condenser transducer technology. They're perfect for formal, sit-down interviews. Their tiny size means that you can conceal them to minimize that "Oh, we're watching TV" disconnect. The downside is that most require batteries. As you know, batteries invariably fail at critical moments, so always use fresh, high-quality mic batteries. It *is* possible to power lavalieres directly from some mixers, but few budding video producers will use mixers.

I tested Shure's WL50B. The clear and crisp sound was a cut above the handheld and is reflected in its higher price: $316.

Shotgun Mic

So-named because it resembles a shotgun barrel, the shotgun mic's unidirectional barrel (called an *interference tube*) narrows the focus of the audio field to about 30 degrees.

A shotgun mic can handle a number of tasks. I picked up one idea from top freelance photojournalist John Alpert. He's a one-man band who ventures into uncomfortable and frequently dangerous situations and uses his affable demeanor to get some amazingly revealing sound bites. Instead of shoving a handheld mic into his subjects' faces—which frequently leads to "mic-stare" and other nervous reactions—he uses a shotgun mic tucked under his armpit. He leans his head away from the camera viewfinder and simply chats with his subjects in his unique, gee-whiz kind of way. It works like magic.

One thing shotgun mics don't do is zoom. As Chris Lyons, the Shure engineer who wrote the audio expert sidebar says, "They're more like looking through a long tube at someone." They narrow your "view" of the sound.

Note: A *Telephoto* Mic

The telephoto lens equivalent in the microphone world is a parabolic dish. You've seen networks use them along the sidelines of NFL games to get those great crunching hits.

Good shotgun mics will set you back about $1,000. I tried out Shure's superb SM89 ($1,180). This is a condenser mic and needs phantom power that a standard prosumer camcorder cannot provide. A $100 (list price) PB224 portable phantom power adapter from the Rolls Corporation (www.rolls.com) will take care of that.

Boundary or Surface Mount Mics

You'll use these very specialized mics to pick up several speakers at a conference table or on a theater stage. They're built to be placed on a flat surface and pick up sound waves in both the air and from the hard surface. A good omnidirectional boundary mic costs about $160.

Wireless Systems

A wireless system is a major purchase that might set you back about as much as a medium-quality DV camcorder. And it can be a battery hog. But it can make your life a whole lot simpler and give you some incredible audio.

Wireless mics open a whole new spectrum of possibilities—a presenter at a trade show, the priest at a wedding, or a football coach working the sidelines. Wireless mics enable you to grab sound from a distance. After you've used one, you'll wonder how you got along without it. Wireless mics are a luxury, and good ones are priced to match. My Shure UP4 test unit, including receiver and an M58 mic with a built-in U2 transmitter, retails for $2,086 (see Figure 13.3).

FIGURE 13.3: *The Shure UP4 wireless receiver with a combo mic and wireless transmitter.*

Connecting Mics to Your Camcorder or PC

Surprisingly, this is the place where most mic problems arise. Most consumer and prosumer camcorders do not have decent mic input connections. They typically do not have enough amplification to "hear" standard handheld mics. What's more, they use mini-plugs, whereas most professional mics use rugged, reliable, three-pronged XLR jacks.

What you might need is a transformer with an XLR-to-mini–plug cable to increase the impedance and enable you to connect your mic to your camcorder. Such transformers are passive, meaning that they don't require electricity. Shure has just such a transformer—the A96F—for $54. If you use a powered mic such as a lavaliere, you might need only the XLR-to-mini–plug converter cable.

Making the PC Connection

Adobe Premiere Pro makes it possible for you add a narration track to your project, live, as you watch your video play. To do that, you need to connect a mic to your soundcard (I cover that recording process in the next module, "Editing Audio."

Voice-overs created with soundcards generally can't sound as good as those recorded with professional equipment in a recording studio or even as good as those made using a mic plugged into your camcorder. But they still can sound good enough for basic production work. You can take two routes: simple or not-so-simple.

Simple Approach

The simple approach is to visit your local Radio Shack and spend $20 to $30 on a mic. You'll have two basic choices:

- *Dynamic mics* come in two models. One is combined with a headset. Gamers and those who use their PCs to make phone calls like this hands-free approach. The other is a long-neck version that sets on your desk, which minimizes extraneous noise.
- *Condenser mics* offer slightly better voice-over quality and require a battery. They typically are lavaliere-style.

Buy a mic with a 1/8-inch (3.5mm) stereo minijack connection so that it can plug directly into your soundcard. Figure 13.4 shows a typical soundcard rear panel. Plug the mic into the correct jack (usually marked Mic or with a mic icon) and not the Line-in jack used with amplified devices such as CD players and sound mixers.

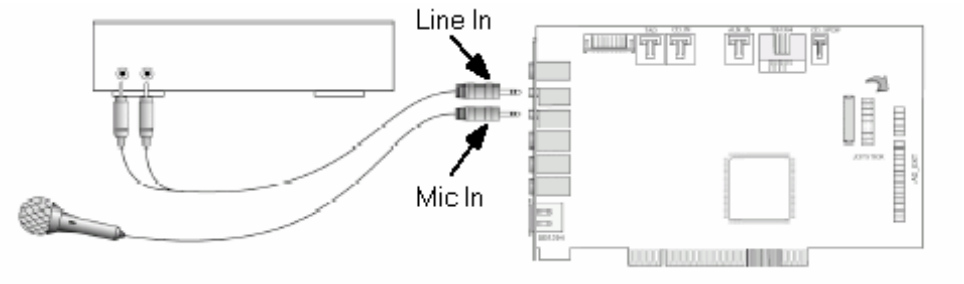

FIGURE 13.4: *Plug your mic into the Mic jack on your soundcard's back panel. Use the Line-in jack only if you're using an amplified mixer with your mic.*

Whichever mic you choose, make sure that you also get a headset. As I mention later this module in "Voicing Solid Narrations," it's important to hear how the mic hears you.

Tip: Smooth Voice-over Recording

Recording a voice-over while editing video is a system-intensive process. To ensure glitch-free recording, free up resources: Close anti-virus software, system-monitoring products, and other programs that might be running in the background with the exception of those required for the video, audio, and system components to function properly.

Not-So-Simple Approach

Here's how you can up the soundcard voice-over ante. Buy two professional omnidirectional mics. Most come with 1/4-inch or the much larger XLR connectors. Connect them to a pre-amplifier and a mixer. The pre-amp will improve the "color" of the sound. The mixer enables you to increase the stereo effect or sweet spot. To achieve that sweet spot, place the mics a few inches apart and then voice your narration into both of them. Doing so will

better approximate the human ear spacing for stereo recording. You'll need an adapter to connect the mixer to the soundcard's 1/8-inch plug.

Getting the Most from Your Mics—Expert Audio Tips

When I considered whom I'd tap for audio expertise, only one name came to mind: Shure, Inc. Throughout my TV news and video production career, Shure mics have been the staple in our audio kits.

This 78-year-old company is a world leader in microphone technology, playing a role in audio history from the Japanese surrender ending World War II and President John F. Kennedy's inaugural address to Woodstock and the 2002 Winter Olympics, where Shure's wireless systems captured all the opening ceremonies' audio moments. You heard Shure mics at the 2003 Montreux Jazz Festival, the 2003 Country Music Awards, and the Rock and Roll Hall of Fame Museum.

Shure's "Elvis mic," the Unidyne, kicked things off when the company first introduced it in 1939. Frank Sinatra and the Rolling Stones field-tested the SM58—the world's best-selling, all-purpose vocal mic, which was introduced in 1966. And now groups such as N*SYNC and D'Angelo rely on Shure's Beta Series.

Shure put me in touch with Chris Lyons, a Senior Engineer in Shure's Applications Group. In his 13 years with Shure, he has served as Technical Liaison for Shure's broadcast customers and as Product Line Manager for Wired Microphones. Chris has presented hundreds of audio training seminars to broadcasters, educators, government agencies, and audio/visual production specialists. He has written and edited numerous articles and technical papers, including the booklet *Guide to Better Audio for Video Production*, available for free download at http://www.shure.com/booklets/techpubs.html.

Chris offers this expert advice:

- *Always place the microphone as close as is practical to the sound source.* Every time the source-to-mic distance increases by a factor of two, the sound pressure level (SPL) reaching the mic decreases by a factor of four, making clear sound pickup progressively more difficult. This is called the *inverse-square rule*, and it applies whether the distance increases from 6 inches to 12 inches or from 6 feet to 12 feet. This means that the talker-to-mic distance must be cut in half to cause a significant improvement in sound quality.
- *Use the fewest number of microphones necessary for the situation.* People sometimes have a tendency to over-mic a shot, using three or four microphones when one or two would be sufficient. Using excess mics means more background noise pickup, a greater chance of feedback or "tin can" sound, and more levels for the operator to keep track of. If additional mics don't make things sound better, they'll probably make things sound worse.
- *Advice for using a handheld mic:* Whether held in the hand or mounted on a stand, place this mic about 6-12 inches from the talker's mouth, pointing up at about a 45-degree angle (see Figure 13.5). With some types of microphones, holding the microphone very close (3–6 inches) will cause additional emphasis of the lower frequencies (known as *proximity effect*), resulting in a warmer, bass-heavy sound.

FIGURE 13.5: *Proper placement for a handheld mic. (Illustration courtesy Shure, Inc. 2003.)*

- *Tips on using a lavaliere mic:* For best results, clip a lavaliere mic on the outside of clothing, about 6 to 8 inches below the chin. You can clip the mic to the collar of a shirt or blouse, but sound quality in this position tends to be somewhat muffled because some high frequencies (which contain consonants) do not fully wrap around to the area under the chin.
- *Concealing a lavaliere mic:* Concealing the mic gives your production an extra level of quality. Make sure that you keep both the microphone and the first few inches of cable from rubbing against either the body or clothing, which will cause noise. Try taping the "lav" under the shirt collar near the opening in front. The cable can be routed around to the back of the neck, over the collar, and under the shirt. Alternatively, tape it to the interviewee's eyeglasses on the inside by the temple. Route the wire over the ear and down the back.
- *When to use a surface mount mic:* These are great for panel discussions and work best when positioned on a smooth, flat surface, such as a table or desk. A thin piece of soft foam rubber or a computer mouse pad underneath the mic helps minimize problems created by surface vibrations. Small surfaces—less than 3-feet square—reduce the pickup of low frequencies and might improve the clarity of deep voices by reducing "boominess."
- *Working with a shotgun mic:* Avoid aiming shotgun mics at hard surfaces such as tile floors, brick walls, and flat ceilings. These surfaces reflect background noise into the microphone or cause the sound to be slightly hollow. Place a heavy blanket on a reflective surface to provide some sound absorption. Shotgun mics are more sensitive to wind noise than standard microphones, so use a foam windscreen and don't move them too rapidly. A rubber-isolated shock mount will help control handling noise.
- *Why work with low-impedance microphones?* Low-impedance or "low-Z" mics (less than 600 ohms) enable you to use very long runs of cable (more than 1,000 feet) with negligible loss of sound quality. "High-Z" mics (greater than 10,000 ohms) lose high frequencies and begin to sound muffled with 20-foot cables. The impedance of a microphone should *not* match the impedance of the input to which it is connected. Matching the impedance causes significant signal level loss. Always connect low-impedance microphones to higher-impedance inputs—preferably 5 to 10 times greater. Inputs on professional mixers typically have an impedance of 1,000 ohms or more.
- *Wireless system issues:* Try to keep the distance from the transmitter to the receiver as short as possible. Always do a walkaround with the mic before the event. If dropouts occur, try moving the receiver a few feet and repeat the walkaround. Dual-antenna diversity receivers minimize dropout because it is unlikely that the signal to both antennas will be interrupted at the same instant. If possible, do your sound check at the same time of day as the event to discover whether there are any nearby users of your wireless frequencies. When using belt-pack-type transmitters, make sure that the antenna cable is hanging straight. Coiling it up in the wearer's pocket significantly reduces transmission distance. With handheld transmitters that have an external antenna, discourage users from holding their hands over the antenna to avoid reducing transmission range and increasing dropout.
- *Use balanced cables and connectors.* Their metal shielding keeps the audio signal free of interference from things such as florescent lights, dimmer switches, and other audio or electrical cables. Use cables with braided or mesh shielding. They are more resistant than metal foil shielding to cracks or tears, which cause electrical shorts.
- *Plan ahead.* This is the most important thing you can do to improve the audio quality of your productions. When you set up your equipment, look for things that might cause a problem with your

audio—air conditioning ducts, noisy doors, fluorescent lights, and so on. Check for things that you can use to your advantage—sound-absorbent carpeting or a built-in PA system. Experiment with different mic placements, but don't gamble an important project on a method you've never tried. Monitor your audio and listen carefully for anything that sounds unnatural. As the saying goes, "If you notice the sound, there's something wrong with it."

Building a Simple and Inexpensive Voice-Recording Area

To create your voice-over narration, you'll need a quiet, sound-absorbing location. I touched base with the industry leader in sound absorption material: Auralex Acoustics.

Auralex suggests that the easiest solution is to build a temporary recording area simply by hanging some thick blankets or fiberglass insulation on two joining corner walls. It is an old audio myth that egg cartons, carpeting, and foam rubber work well. Avoid them. If you can create something like a four-sided, blanketed cubicle, so much the better.

If you drape the blankets only in one corner, point the mic toward that corner, place yourself between the mic and the corner, and speak *away* from the blankets. It seems counterintuitive, but the mic is sort of like a camera. It "sees" what's in front of it (even if it is omnidirectional). In this case, it "sees" your face and the hanging, sound-absorbing blankets.

If you want to take your voice-recording area quality up several notches, consider purchasing Auralex's studio foam sheets or a portable recording area kit. These kits range in price from $159 to $999. Figure 13.6 illustrates two of these *acoustic environments*, as Auralex calls them. The company emphasizes that these kits are not true isolation booths. Those are intended to keep sound out and require some serious construction. Visit http://www.auralex.com/ for product and dealer info, plus a contact phone number. Auralex is very customer-service oriented and will help you find a solution.

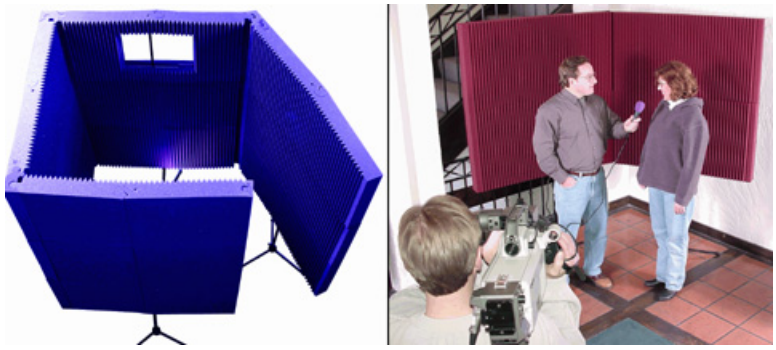

FIGURE 13.6: *Acoustic environments from Auralex—MAX-Wall 420 (right) and MAX-Wall 1141VB (left). (Photos courtesy Auralex Acoustics.)*

Voicing Solid Narrations

Creating narrations is as easy as turning on your camcorder. If you have a handheld mic (or some other external mic), plug it into your camcorder. Otherwise, you can use the built-in, onboard camcorder mic.

Before you record your voice-over, go over this checklist to make sure that you're ready:

- *Read your copy out loud.* Listen to your words. They should sound comfortable, conversational, even informal.
- *Avoid technical jargon.* That demands extra effort from your listeners, and you might lose them.
- *Short sentences work best.* If you find yourself stumbling over certain phrases, rewrite them.

- *Emphasize important words and phrases.* As you review your copy, underline important words. When you record your voice-over, you'll want to give those words extra emphasis—more volume and punch.
- *Mark pauses.* Go through your copy and mark logical breaks with short parallel lines. They'll remind you to pause at those points. Avoid overly smooth and constant pacing. That's characteristic of a scripted delivery and, once again, you don't want to remind viewers that this is TV. It's real life. It's conversational.
- *Break up your copy into shorter sentences.* Always be on the lookout for convoluted, wandering sentences. Too many modifiers can be unwieldy. Break long sentences into several shorter ones. Shorter sentences tend to have only one key point. It's easier to emphasize one key point in one sentence versus multiple points in a rambling speech.
- *Punch up your voice.* When reading copy, it's too easy to slip into a dull, monotone voice. Instead, add some zest and enthusiasm to your narration. As one consultant told me, "Pump up your projection." You want people to pay attention. You do that by speaking as if the subject truly interests you. On the other hand, you aren't trying to be a professional announcer. No need to put on airs or use a *basso profundo* voice.
- *Practice.* Record a couple narrations and listen. Have others listen. Most first-time narrators mumble or swallow words. Have you made yourself clear?
- *Use a windscreen.* Although you need to record close to the mic for best effect—12 inches away or so—getting too close can lead to "popping P's." As you say P-words, you project a small blast of wind at the mic. Using a windscreen minimizes that, as does not speaking directly into the mic.
- *Wear earphones.* In this case, the purpose is not to make sure that you're actually getting audio; rather, it's to hear yourself. That might seem a bit odd. You can hear yourself just fine without a headset. But you need the headset to see how the mic "hears" you. You'll also discover whether you're popping any P's or speaking with too much *sibilance*—an overemphasis on the S sound.

Ripping Music CDs

The easiest source for video production music is next to your stereo: your personal music CD collection. All CD cuts are digital and easily ripped to your hard drive. Once *ripped*—converted from CD audio a digital file on your hard drive—it's a simple matter to import CD music into Adobe Premiere Pro.

Caution: Beware the Copyright Police

Those tunes on your CDs are all copyrighted. I'm not an attorney and don't pretend to understand copyright law. That said, I'd suggest treading carefully when using someone else's music. Generally, if it's for personal use, it's considered *fair use* and there are no copyright issues. But just about any other use can step outside fair use.

To be on the safe side, compose your own music (see "Creating Custom Music with SmartSound Movie Maestro" later in this module for one means to that end) or license or buy royalty-free music. To find out more about the latter, search on www.Google.com for *music licensing* or *royalty-free music*. I've worked with such three firms: www.LicenseMusic.com, www.dittybase.com, and www.Stock-Music.com.

Using Adobe Audition to Rip Tunes from CDs

No, the modules are not taking a violent twist. *Ripping* is just how some describe the process of transferring music from a CD to a PC. Several products are available to do that. The one most likely to be at your fingertips is Windows Media Player. I go over how it works in a moment.

First a brief look at how to rip CDs using Adobe Audition. It's a powerful audio editing, mixing and recording product. I present an in-depth series of Adobe Audition tasks in Module 16, "Adobe Audition: A Professional Audio Tool."

One of its side benefits is its ability to rip tracks from audio CDs. Unlike Adobe Audition, most products that offer this capability do not offer audio editing. Their primary purpose is for you to copy those tunes to your PC for playback or to use them to create your own customized CDs.

For that reason, I cover the Windows Media Player's CD ripping functionality in this module.

However, if you're geared more to *editing* tunes ripped from CDs, Adobe Audition is the right product. The process is very easy. Since I will cover Adobe Audition in greater detail later, I will give only a brief overview here of three ways to extract audio from a music CD. Method 1, the File > Open process is if you want to rip entire tunes from a CD. Method 2, the Extraction process lets you rip portions of a tune and specify the ripping process. Method 3 is for those who have older CD drives that don't support CD audio extraction:

Ripping CD Audio – Method 1 – File > Open

1. Adobe Audition has three modes: Multitrack, Waveform Edit and CD Project (for recording *to* a CD). Click on the Edit View tab. Select File > Open.

2. Navigate to your audio CD. As shown in Figure 13.7, Adobe Audition will display the music CD's numbered tracks (no titles).

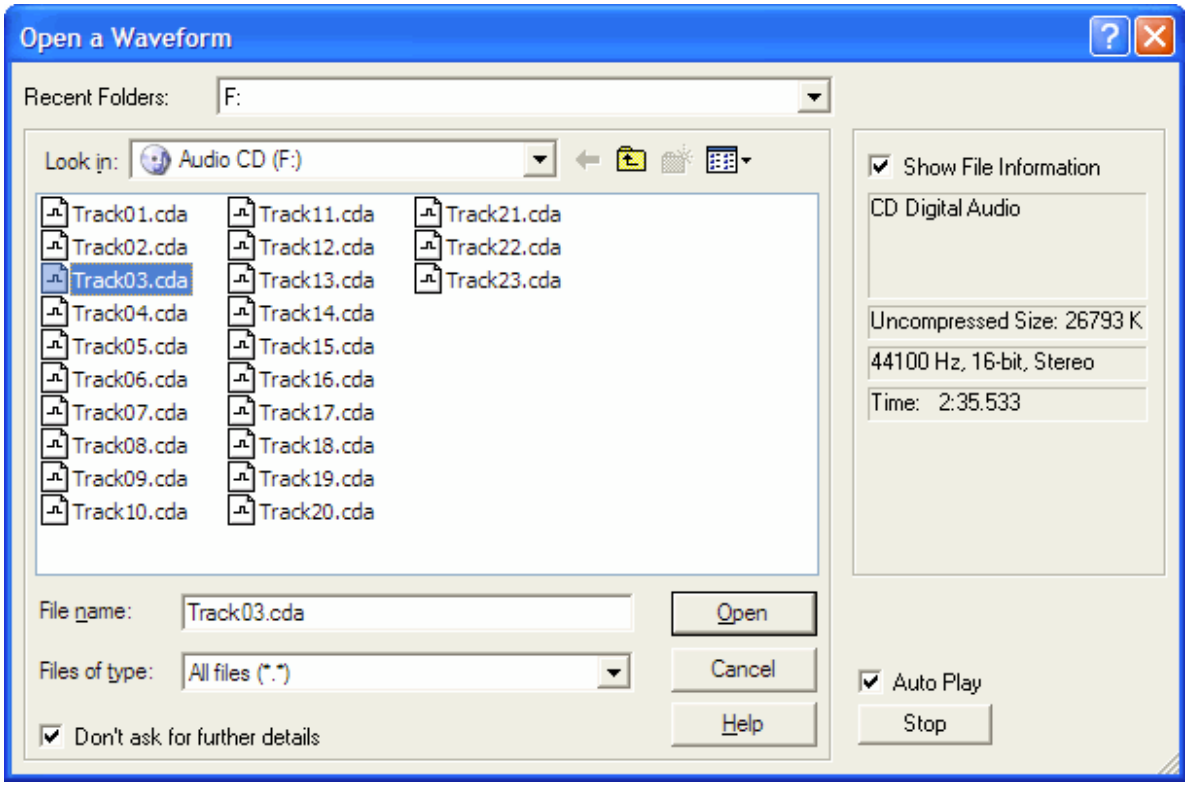

FIGURE 13.7: *Adobe Audition readily rips tracks from a CD.*

3. Select one or more and click Open.

4. After copying the CDA files, the waveform for the last track in the group you ripped will display in Adobe Audition's interface. You access the other tracks from the Files list highlighted in Figure 13.8.

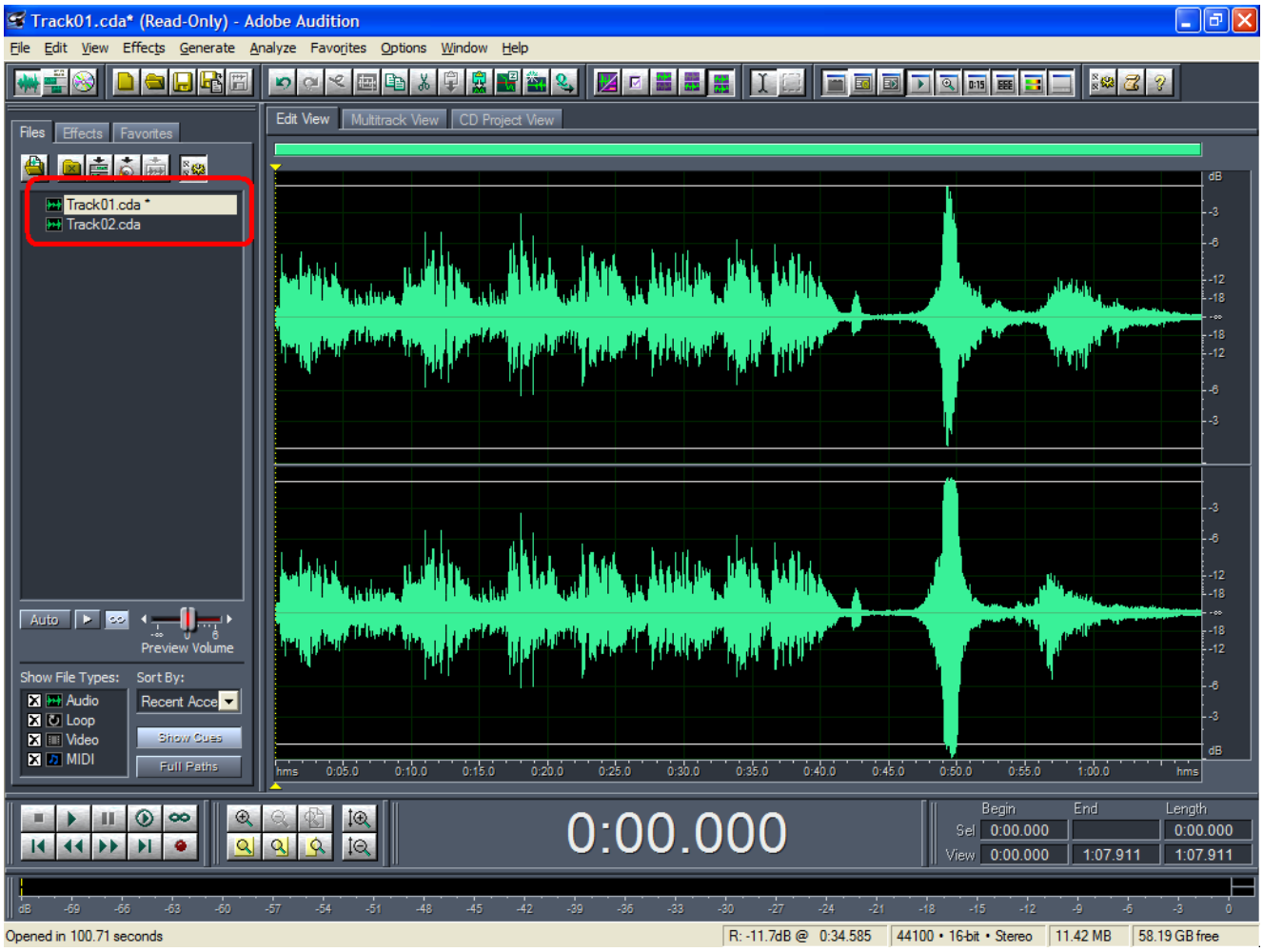

FIGURE 13.8: *In Adobe Audition's Waveform workspace, you can edit the track you just copied and access other tracks from the highlighted file list.*

5. You can listen to that tune by pressing the space bar or use the standard playback controls at the bottom of the screen.

6. Save the ripped tunes in one of about 20 different audio formats supported by Adobe Audition by selecting File > Save as.

Ripping CD Audio – Method 2 – Extraction

1. In the Edit or CD Project view select File > Extract Audio from a CD. That opens the window shown in Figure 13.8a. Note that it lists every track on your CD in Minutes:Seconds:Frames (Each second of CD Audio has 75 frames).

2. Click the Time button to extract part of a track or a segment of audio that spans multiple tracks. Enter the beginning frame in the Start box (note that if you select a track, its beginning and ending frame values display) and the total number of frames you wish to extract in the Length box.

3. For Interface Option, choose Generic Win32 or ASPI/SPTI. In most cases, ASPI/SPTI is the best choice. Select Generic Win32 only if the ASPI/SPTI option doesn't produce satisfactory results. The Generic Win32 option causes the Extract Audio From CD feature to use Input/Output control codes instead of SCSI commands.

4. For Error Correction, CDDA Accurate is automatically selected if the CD-ROM drive has built-in ripping error correction. For these types of drives, no error correction is needed, so you won't be able to select any options from this part of the Extract Audio From CD dialog box.

5. If your drive isn't CDDA Accurate, you have access to No Correction and Jitter Correction options. Jitter Correction compensates for data reading problems that older drives might have.

6. After you finish setting options, click OK.

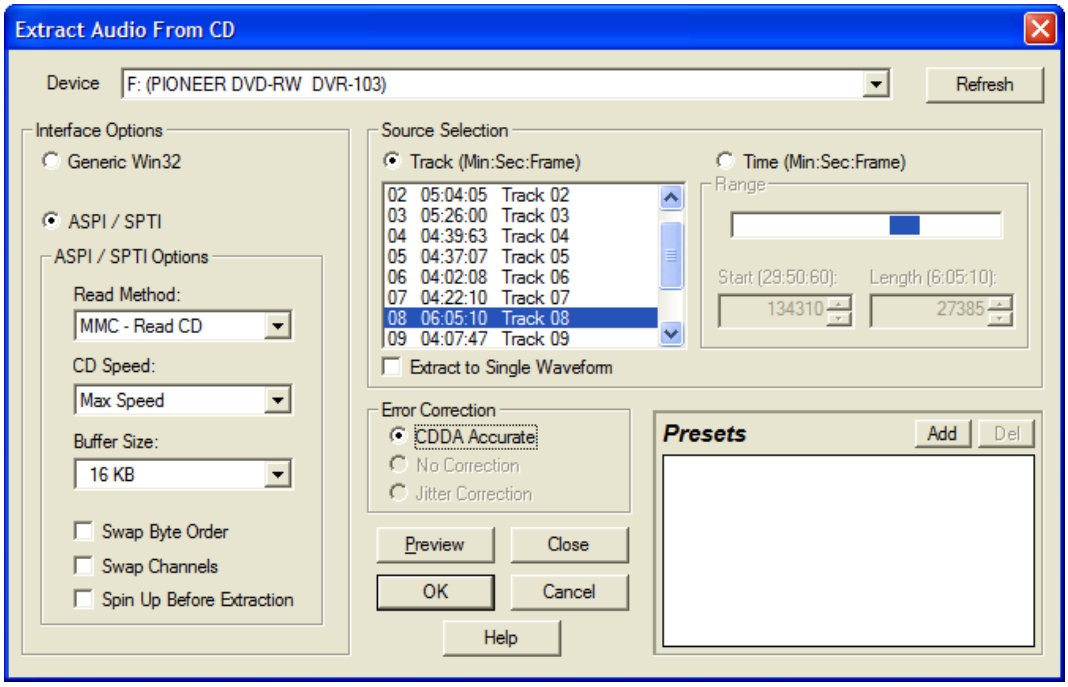

FIGURE 13.9: *Audition gives you the option to extract a portion of an Audio CD track --or multiple tracks -- as one file.*

Ripping CD Audio – Method 3 – Internal Recording

If you have an older CD-ROM drive that doesn't support digital extraction, or if you have problems ripping a track into Adobe Audition, then you can record from a CD in real-time through the sound card on your computer. This method is called internal recording. To do this you will need to have an internal audio cable connecting your CD drive to your sound card. Be aware that not all computers react the same way when recording from CD internally. As a result, this method might not work as well as digitally extracting audio from a CD.

1. You need to first set the CD Audio input level. Open a CD player like Windows Media Player and play the loudest part of the CD.

2. Switch to Adobe Audition, click on the Edit or Multitrack View and choose Options > Monitor Record Level. If you don't see anything in the Level Meters, select Options > Windows Recording Control panel. Select either Wave/MP3 or CD-Audio. Watch the Audition VU meter to see which one works.

3. Use the Level Meters in Adobe Audition to monitor the amplitude of the incoming signal. You want the input level to be as loud as possible without exceeding 0 dB. If the input level exceeds 0 dB, clipping occurs (part of the audio signal is lost).

4. You can adjust the CD Audio input level using the volume control in Windows Media Player or in the Windows Recording Control panel. Access it by choosing Options > Windows Recording Mixer.

5. After you set the record level, turn off the VU meter by selecting Options > Monitor Record Level to uncheck it.

6. To record from a CD internally make sure you're in Edit View then select File > New. Select the 44,100 sample rate (CD Audio) and click OK.
7. Stop the CD.
8. Click the red Record button in the lower left corner of the Audition interface.
9. Start the desired track in your CD player application.
10. When completed, stop recording in both Adobe Audition and the CD player application.

Using Windows Media Player to Rip CD Cuts

Since the focus of this module is obtaining audio for use in Adobe Premiere Pro projects, using Adobe Audition to rip music is like hiring the Philharmonic Orchestra to play at a high school prom. What works best in this case is a utility geared to this narrow task.

Task: Use Windows Media Player to Rip CD Cuts

Windows Media Player is just such a utility. Here's how it works:

1. Open Windows Media Player. It's probably in the Start menu under Accessories. If not, its default location is C:\Program Files\Windows Media Player\wmplayer.exe. You can open My Computer, go to this location, and double-click wmplayer.exe. Doing so opens the interface shown in Figure 13.10.

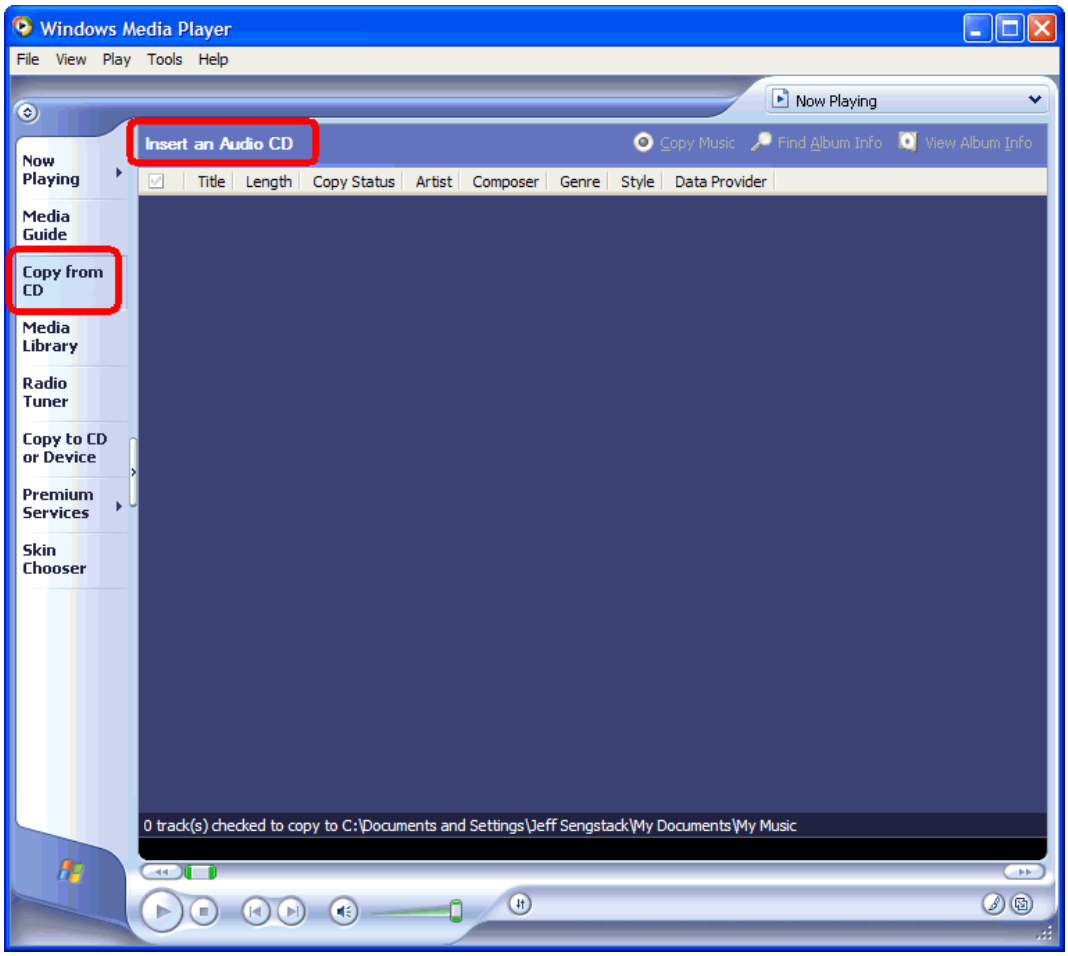

FIGURE 13.10: *Use Windows Media Player to rip tracks from music CDs.*

Tip: Automatically Opening Windows Media Player

You can open Windows Media Player another way. Simply insert a music CD into your DVD or CD drive and, depending on your version of Windows, either Windows Media Player automatically starts playing that CD or you're given an option of playing the CD with one of several programs that you have installed on your PC.

2. Click Copy from CD, as highlighted in Figure 13.11. That pops up a message asking you to insert an audio CD.

3. Insert a music CD. Either Windows will ask you which CD player you want to use (select Media Player), or Windows Media Player will automatically start playing the CD. Click the Stop button, as shown in Figure 13.11.

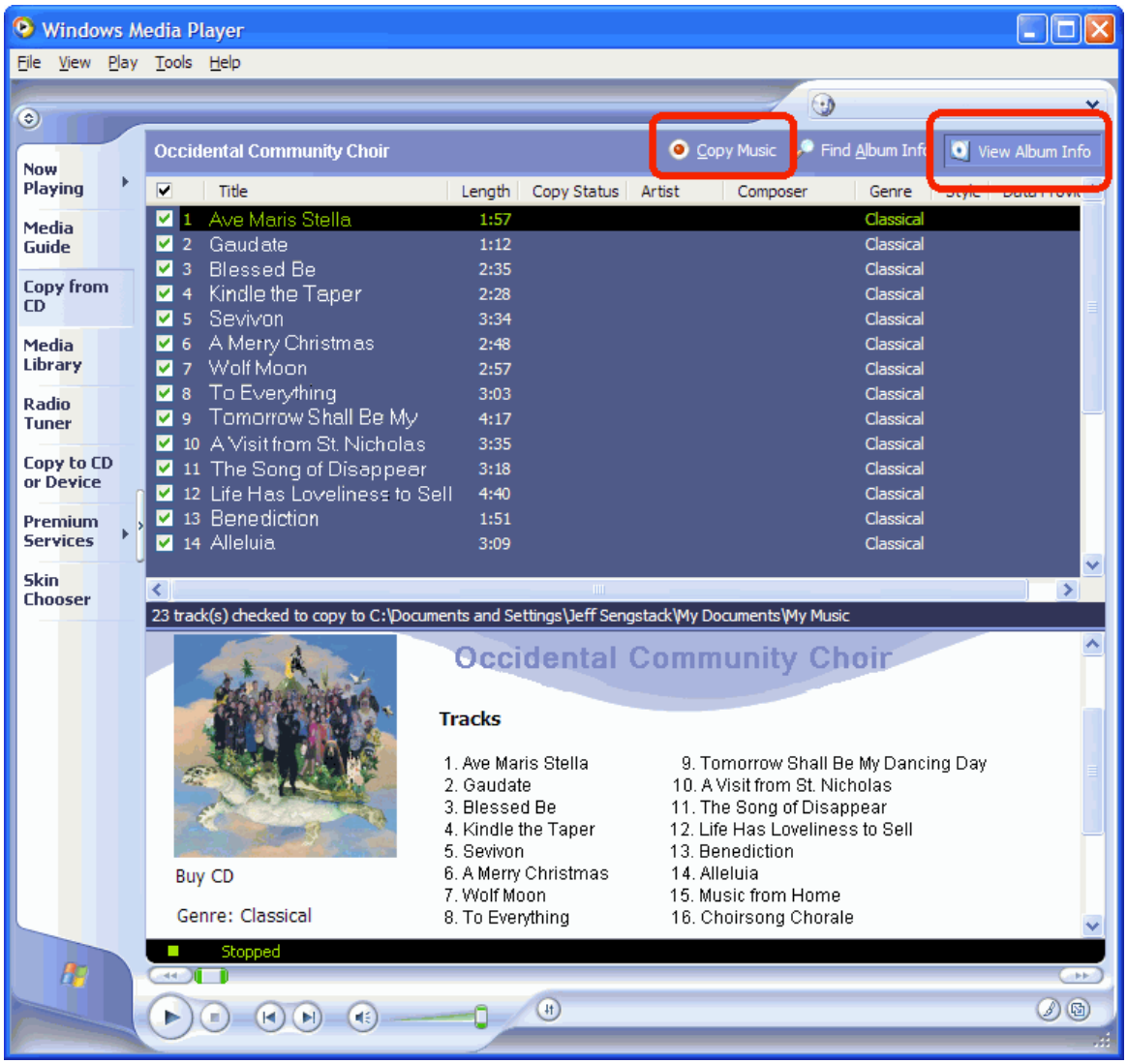
Windows Media Player
File View Play Tools Help
Now Playing
Media Guide
Copy from CD
Media Library
Radio Tuner
Copy to CD or Device
Premium Services
Skin Chooser
Occidental Community Choir
Copy Music
Find Album Info
View Album Info
Title Length Copy Status Artist Composer Genre
1 Ave Maris Stella 1:57 Classical
2 Gaudate 1:12 Classical
3 Blessed Be 2:35 Classical
4 Kindle the Taper 2:28 Classical
5 Sevivon 3:34 Classical
6 A Merry Christmas 2:48 Classical
7 Wolf Moon 2:57 Classical
8 To Everything 3:03 Classical
9 Tomorrow Shall Be My 4:17 Classical
10 A Visit from St. Nicholas 3:35 Classical
11 The Song of Disappear 3:18 Classical
12 Life Has Loveliness to Sell 4:40 Classical
13 Benediction 1:51 Classical
14 Alleluia 3:09 Classical
23 track(s) checked to copy to C:\Documents and Settings\Jeff Sengstack\My Documents\My Music
Occidental Community Choir
Tracks
1. Ave Maris Stella
2. Gaudate
3. Blessed Be
4. Kindle the Taper
5. Sevivon
6. A Merry Christmas
7. Wolf Moon
8. To Everything
9. Tomorrow Shall Be My Dancing Day
10. A Visit from St. Nicholas
11. The Song of Disappear
12. Life Has Loveliness to Sell
13. Benediction
14. Alleluia
15. Music from Home
16. Choirsong Chorale
Buy CD
Genre: Classical
Stopped

FIGURE 13.11: *Windows Media Player's Copy CD interface displays information about your CD retrieved from the Internet (to avoid any possible copyright conflicts, I created a "dummy" screenshot using my choir's material).*

Note: Online Album Details

All music CDs have unique identification codes. Those codes are generated by examining track times. If you're connected to the Internet, Media Player will send your music CD's data to www.allmusic.com (going through www.windowsmedia.com along the way). That site (owned by All Media Guide) is a repository of a huge database on music CDs. It uses that identifier number to retrieve your CD's information—title, artist, and track names—and then Windows Media Player displays them. As shown in Figure 13.11, click View Album Info for a full listing plus a review. Even my example, the brilliant but little known classical men's choir, Chanticleer, shows up.

4. By default, all tracks are checkmarked for copying to your hard drive. You can uncheck any that you don't want to copy.

Tip: Preview a Tune

If you want to preview a track, click it to select it, and then click the Play button.

5. The default copy location is C:\Documents and Settings\current user\My Documents\My Music. Windows Media Player creates a folder for the artists and a subfolder for the selected album. If you want to change that location, select Tools, Options from the menu bar. Doing so opens the Options menu, shown in Figure 13.12. Select the Copy Music tab and change the directory.

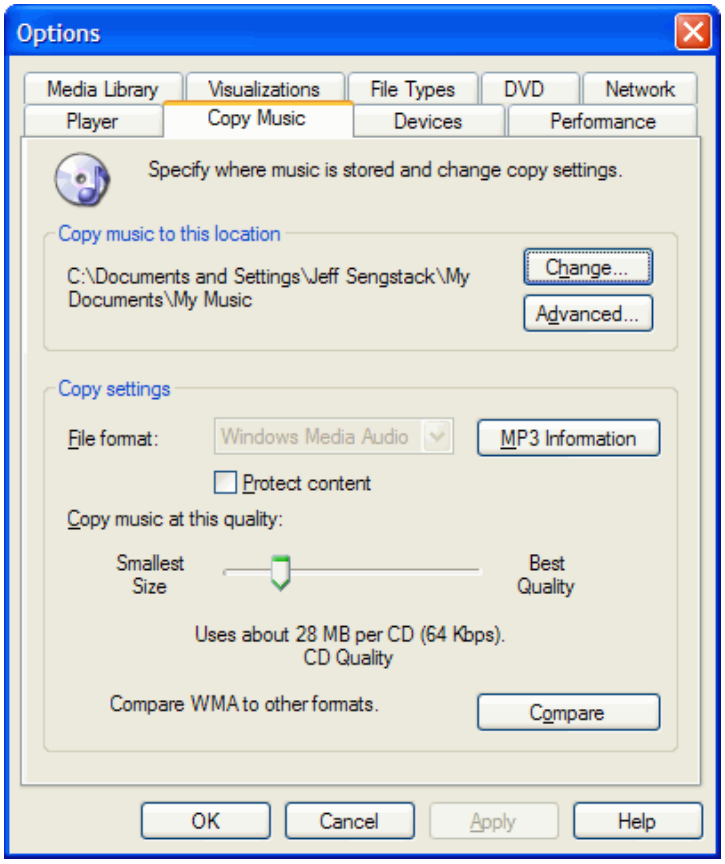

FIGURE 13.12: *Use the Options interface to change the file folder storage location for your selected music tracks.*

Tip: Avoid Vocals for Background Music

When selecting music for use in video or DVD productions, instrumentals generally work best. Vocals can step on your narration, natural sound, or voices in your videos.

6. When you're ready to copy the tracks, click the Copy Music button at the top of the interface. That opens two dialog boxes: The first reminds you to not make illegal copies and the second asks you about setting the recording quality level. It's best to use the highest quality setting for tunes you'll use in an Adobe Premiere Pro project. When you're past the dialogs, Windows Media Player displays progress bars to let you know how things are proceeding.

Now that you've ripped a few tunes, you can use Adobe Audition or Windows Media Player to burn a music CD. I discuss the CD recording aspects of Audition in Module 16: "Adobe Audition: A Professional Audio Tool."

For now, I suggest you use the Media Player. As shown in Figure 13.13, access the Player's CD burning feature by clicking Copy to CD or Device, select the tracks or play list you want to burn, place a recordable CD in your drive, and click the Copy button. This is a great way to create personalized CDs of your favorite tunes.

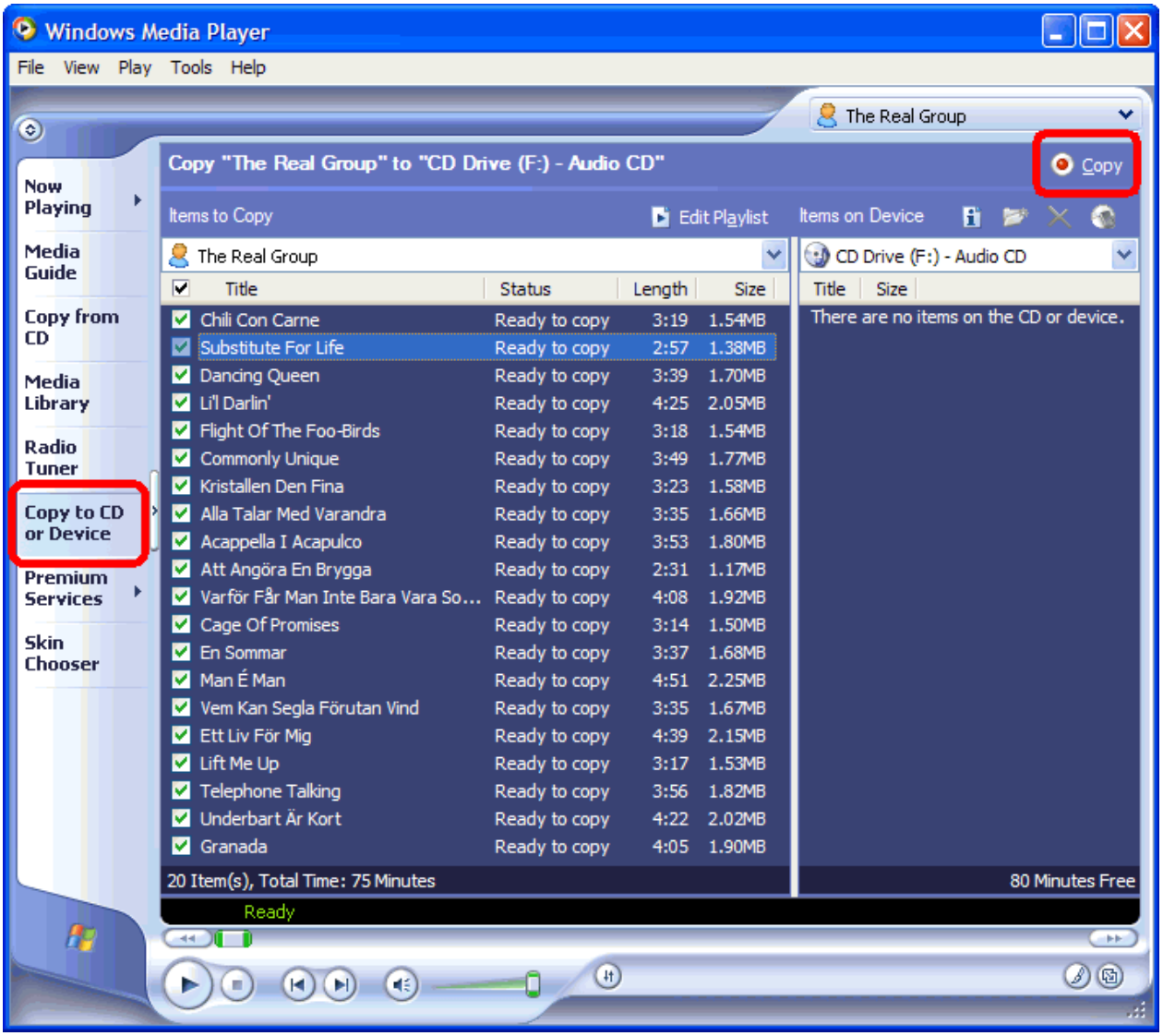
Windows Media Player
File View Play Tools Help
The Real Group
Copy "The Real Group" to "CD Drive (F:) - Audio CD"
Copy
Now Playing
Media Guide
Copy from CD
Media Library
Radio Tuner
Copy to CD or Device
Premium Services
Skin Chooser
Items to Copy
Edit Playlist
Items on Device
The Real Group
CD Drive (F:) - Audio CD
Title Status Length Size
Chili Con Carne Ready to copy 3:19 1.54MB
Substitute For Life Ready to copy 2:57 1.38MB
Dancing Queen Ready to copy 3:39 1.70MB
Li'l Darlin' Ready to copy 4:25 2.05MB
Flight Of The Foo-Birds Ready to copy 3:18 1.54MB
Commonly Unique Ready to copy 3:49 1.77MB
Kristallen Den Fina Ready to copy 3:23 1.58MB
Alla Talar Med Varandra Ready to copy 3:35 1.66MB
Acappella I Acapulco Ready to copy 3:53 1.80MB
Att Angöra En Brygga Ready to copy 2:31 1.17MB
Varför Får Man Inte Bara Vara So... Ready to copy 4:08 1.92MB
Cage Of Promises Ready to copy 3:14 1.50MB
En Sommar Ready to copy 3:37 1.68MB
Man É Man Ready to copy 4:51 2.25MB
Vem Kan Segla Förutan Vind Ready to copy 3:35 1.67MB
Ett Liv För Mig Ready to copy 4:39 2.15MB
Lift Me Up Ready to copy 3:17 1.53MB
Telephone Talking Ready to copy 3:56 1.82MB
Underbart Är Kort Ready to copy 4:22 2.02MB
Granada Ready to copy 4:05 1.90MB
Title Size
There are no items on the CD or device.
20 Item(s), Total Time: 75 Minutes
80 Minutes Free
Ready

FIGURE 13.13: *Use Windows Media Player to create personalized, customized music CDs.*

SUMMARY ST.

Audio is critical to a high-quality video production. Most important is the original footage. Take some extra measures to ensure high-quality audio. Select the right mics for the job, turn to wireless audio if your budget allows, and use professional voice-over techniques.

Strapped for cash and you need music for a video for personal use? Not to worry: Rip music from CDs or create custom music using Adobe Audition (I explain how to do that in Module 16).

Q and A ST.

Q. When I videotape indoors, my audio has a "tin-can" quality. What's going on?

A. This happens for one of two reasons. The simplest reason is that the mic is too far from your subject and you're in a room with reflective surfaces such as flat walls and an uncarpeted floor. Move the mic closer and, if possible, hang blankets where they won't show up in your video. The other is more complicated and involves what audio engineers call the *3-to-1 Rule*. If you use more than one mic for several speakers, as in a panel discussion, you need to place the mics three times as far apart as they are to the speakers. That is, if a mic is two feet from a panelist, the next mic should be at least six feet away from the first mic. Otherwise, the mics pick up audio at about the same time, cancel each other out, and create that tin-can sound.

Q. I bought professional-quality mics, but I can barely hear them in my headset and later when I listen to my tape. Why?

A. Unlike with professional camcorders, there are no mic standards for consumer and prosumer camcorders. If you read your camcorder's spec sheet, you probably won't see anything about the mic input, whether it's stereo or mono, and whether it needs external amplification. If you're using a low-impedance mic, such as a professional handheld mic with a cable longer than 20 feet, you'll probably need a transformer for most camcorders. That should resolve your low-volume problem. If you're using an unpowered condenser mic, such as a shotgun, you'll need phantom power, from a battery, a mixer, or a portable phantom power adapter.

WORKSHOP ST.

Quiz

1. Why should you use external mics?
2. If you had a budget for only one professional mic, what would it be?
3. When you set up a voice recording space in the corner of a room, which way do you face to voice the narration and why?

Quiz Answers

1. Your camcorder's onboard mic is a jack-of-all-trades and a master of none. It picks up sound all around you, including noise you make when handling the camcorder. External mics capture sound at the source. Using external mics is invariably better and greatly improves the quality of your production.

2. This is kind of a trick question. I think the best bet is a wireless shotgun mic. On news stories, a wireless shotgun gives reporters much greater mobility and puts interviewees at ease. Working with a shotgun mic means there's no need to stick a mic in someone's face. And going wireless obviates that awkward pause to plug a cable into the camera.

3. As counterintuitive as it seems, face *away* from the sound-absorbing material. The mic picks up sound from the direction it's facing. The absorbing material minimizes the reflections it would pick up if the mic faced away from that material.

Exercises

1. Build a simple two-wall voice-recording area using the methods described in this module. Experiment with mic placement, distance from your mouth, and whether the mic points toward or away from the sound absorbing material. Listen critically to the audio quality. Tinny, noisy, muffled, too much echo or just right. Find what works best for you.

2. Work on your narration style. Do several voice-overs using the same script. Listen to your inflection, cadence, and pauses. Do you sound interested in the subject matter? Do you enunciate clearly without sounding pedantic? Try to find a comfort level between overly enthusiastic and bored. And feel free to combine narration segments from different takes. No one take has to be perfect.

3. Check the Yellow Pages for *Recording Service* or *Recording Studio* and pay one or two a visit. I took some high school students to a studio in Portland, Oregon, and we had a blast. The sound engineer demonstrated some amazing voice-sweetening tricks.

For complete information about Adobe digital video tools, please visit the Adobe Education Web site: www.adobe.com/education

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